

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,093	07/28/2005	Friedrich Wilhelm Ludwig Paul Vollrath	4280-104	8612
23448	7590 09/28/2006	•	EXAMINER	
INTELLECTUAL PROPERTY / TECHNOLOGY LAW			LEYSON, JOSEPH S	
PO BOX 14329 RESEARCH TRIANGLE PARK, NC 27709			ART UNIT	PAPER NUMBER
			1722	
			DATE MAILED: 09/28/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

- The MAILING DATE of this communication appeared Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY I WHICHEVER IS LONGER, FROM THE MAILING DAT	S SET TO EXPIRE 3 N E OF THIS COMMUNI a). In no event, however, may a apply and will expire SIX (6) MOI use the application to become A	MONTH(S) OR THIRTY (30) DAYS, CATION. reply be timely filed NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).			
- The MAILING DATE of this communication appeared Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY I WHICHEVER IS LONGER, FROM THE MAILING DAT	seph Leyson  To on the cover sheet we see the cover sheet	Art Unit  1722  With the correspondence address  MONTH(S) OR THIRTY (30) DAYS, ICATION.  reply be timely filed  NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).			
The MAILING DATE of this communication appear Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY I WHICHEVER IS LONGER, FROM THE MAILING DAT	S SET TO EXPIRE 3 NE OF THIS COMMUNI a). In no event, however, may a apply and will expire SIX (6) MOI use the application to become A	IONTH(S) OR THIRTY (30) DAYS, CATION. reply be timely filed NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).			
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY I WHICHEVER IS LONGER, FROM THE MAILING DAT	S SET TO EXPIRE 3 N E OF THIS COMMUNI a). In no event, however, may a apply and will expire SIX (6) MOI use the application to become A	MONTH(S) OR THIRTY (30) DAYS, CATION. reply be timely filed NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).			
A SHORTENED STATUTORY PERIOD FOR REPLY I WHICHEVER IS LONGER, FROM THE MAILING DAT	E OF THIS COMMUNI a). In no event, however, may a apply and will expire SIX (6) MOI use the application to become A	CATION. reply be timely filed  NTHS from the mailing date of this communication. BANDONED (35 U.S.C. § 133).			
<ul> <li>Extensions of time may be available under the provisions of 37 CFR 1.136(after SIX (6) MONTHS from the mailing date of this communication.</li> <li>If NO period for reply is specified above, the maximum statutory period will a Failure to reply within the set or extended period for reply will, by statute, can any reply received by the Office later than three months after the mailing day earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>					
Status					
1) Responsive to communication(s) filed on <u>06 Dec</u>	<u>ember 2005</u> .	•			
·=	•—				
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is				
closed in accordance with the practice under Ex	parte Quayle, 1935 C.[	D. 11, 453 O.G. 213.			
Disposition of Claims					
4) ⊠ Claim(s) 1-23 and 25-31 is/are pending in the ap 4a) Of the above claim(s) is/are withdrawn 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) 1-23 and 25-31 is/are rejected. 7) ⊠ Claim(s) 14-16,19,23 and 27 is/are objected to. 8) □ Claim(s) are subject to restriction and/or expressions.	from consideration.				
Application Papers					
9) The specification is objected to by the Examiner.					
10)☐ The drawing(s) filed on is/are: a)☐ accep	•				
Applicant may not request that any objection to the dra					
Replacement drawing sheet(s) including the correction 11) The oath or declaration is objected to by the Exar	·	• • •			
Priority under 35 U.S.C. § 119					
12) ☐ Acknowledgment is made of a claim for foreign properties a) ☐ All b) ☐ Some * c) ☐ None of:  1. ☐ Certified copies of the priority documents the second copies of the priority documents the second copies of the certified copies of the priority application from the International Bureau (* See the attached detailed Office action for a list of the certified copies of the priority application from the International Bureau (* See the attached detailed Office action for a list of the certified copies of the priority application from the International Bureau (* See the attached detailed Office action for a list of the certified copies of the priority documents the certified copies of the priority application from the International Bureau (* See the attached detailed Office action for a list of the certified copies of the priority application from the International Bureau (* See the attached detailed Office action for a list of the certified copies of the priority application from the International Bureau (* See the attached detailed Office action for a list of the certified copies of the priority application from the International Bureau (* See the attached detailed Office action for a list of the certified copies of the priority application for a list of the certified copies of the priority application for a list of the certified copies of the certified copie	nave been received. nave been received in A documents have beer PCT Rule 17.2(a)).	Application No n received in this National Stage			
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)	Paper No	Summary (PTO-413) (s)/Mail Date Informal Patent Application			

Application/Control Number: 10/535,093 Page 2

**Art Unit: 1722** 

# **DETAILED ACTION**

### Specification

1. The disclosure is objected to because of the following informalities: the disclosure is replete with grammatical errors which should be corrected, i.e., "an a" (p. 15, line 23) and "die 8. in" (p. 16, line 10).

Appropriate correction is required.

# Claim Objections

2. Claims 14-16, 19, 23 and 27 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 14-16, 19, 23 and 27 merely recite intended uses of the claimed apparatus and do not further recite structure or structural relationships. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114. "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the

Claims." In re Young, 75 F.2d \*>996<, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

#### Claim Rejections - 35 USC § 112

- 3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 4. Claims 1-23 and 25-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "excludable" which is not clearly understood. The examiner suggests changing it to --extrudable--.

Claim 2 is incorrect. As understood from the disclosure (p. 3, lines 8-10), the extrusion apparatus, NOT the regulatory module, includes at least one second reservoir. In fig. 1, note how the reservoir 1 is a separate element relative to the module 4.

Claims 8 and 9 are incorrect. As understood from the disclosure, the extrusion apparatus, NOT the regulatory modules, includes at least one pump. In fig. 1, note how the pump 2 is a separate element relative to the module 4.

Claims 15 and 16 are incorrect. The rod shaped units are NOT perpendicular to an internal surface of the passage in the initial zone, and do NOT tumble in the subsequent zone. As understood from the disclosure (p. 17, lines 4-14; figs. 2 and 6), the material in the initial zone 60 includes rod-shaped units 64 that start to tumble at

position 12A and become arranged substantially perpendicular to the internal surface 18 at the subsequent zone 62.

The metes and bounds of the apparatus limitations of claims 14-16, 19, 23 and 27 cannot be understood because claims 14-16, 19, 23 and 27 merely recite intended uses of the claimed apparatus and do NOT recite further structure or structural relationships.

Claim 28 recites "the sensors" which lacks antecedent basis making the metes and bounds of the claim indefinite.

# Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-3, 8, 10-12, 14-16, 25-27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO reference (WO 01/38614).

WIPO reference (WO 01/38614) teaches a spinning extrusion apparatus including at least one first reservoir 1 connected at a first end to a first opening of a plurality of regulatory modules 4 containing tubular passages 17 through which material is extrudable, the passages 17 having flow inlets (i.e., figs. 1-2), wherein the regulatory modules 4 additionally comprises at least one second reservoir fluidly connected to at least an opening in at least one of the passages 17 (i.e., p. 10, lines 6-11), a pump 2, the passages 17 having interior walls made of a permeable material (i.e., p. 16, lines 6-23), the regulatory modules 4 are formed by injection molding (i.e., p. 11, lines 13-16), and cleaning apparatus including a permeable interior wall in the passages 17 through which cleaning agents (i.e., the liquids within the jackets 9 and 14) are introduced (i.e., p. 12, lines 3-36), wherein the cleaning agents are alkaline fluids (i.e., p. 19, lines 1-9). As to instant claim 14, WIPO reference (WO 01/38614) discloses that draw down depends upon various parameters (p. 18, lines 3-22), and the distance recited by instant claim 4 would have been found by an artisan of ordinary skill due to routine engineering in varying the parameters. As to instant claims 15 and 16, the apparatus of WIPO reference (WO 01/38614) is capable of performing such limitations, and further WIPO reference (WO 01/38614) discloses that a convergent die will orient droplets in a direction parallel to that of the formed product (i.e., p. 10, lines 24-28).

WIPO reference (WO 01/38614) does not disclose at least 1000 passages per square meter cross-section, but does disclose that the apparatus can be modified with fewer or more passages (p. 19, line 26, to p. 20, line 8).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the apparatus of WIPO reference (WO 01/38614) with at least 1000 passages per square meter cross-section because WIPO reference (WO 01/38614) explicitly discloses that there can be fewer or more passages and because it is well within an artisan of ordinary skill in the art to modify the number of passages per amount of area depending upon the number of products desired to be made by the apparatus in a given amount of space in view of the teachings of WIPO reference (WO 01/38614).

8. Claims 4-7 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO reference (WO 01/38614) as applied to claims 1-3, 8, 10-12, 14-16, 25-27 and 31 above, and further in view of Niemz et al. (U.S. Patent 6,902,690).

Niemz et al. (U.S. Patent 6,902,690) disclose a spinning extrusion apparatus having control means including a microprocessor 12 and sensors 9-11, such as a temperature sensor 11, connected to the microprocessor 12. The microprocessor 12 and sensors 9-11 are integral to the extrusion apparatus (i.e., fig. 1). The microprocessor 12 has outputs 13-15 for sending signals to regulate at least one parameter of the extrusion apparatus (i.e., cols. 4-5).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus with the control means of Niemz et

al. (U.S. Patent 6,902,690) because such a modification would provide feedback control of the parameters of the extrusion apparatus.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO reference (WO 01/38614) as applied to claims 1-3, 8, 10-12, 14-16, 25-27 and 31 above, and further in view of Okuyama et al. (U.S. Patent 4,939,405).

Okuyama et al. (U.S. Patent 4,939,405) disclose a piezo-electric vibrator pump (i.e., fig. 1) for pumping fluids (i.e., col. 1).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the pump with a piezo-electric vibrator pump because such a piezo-electric vibrator pump for pumping fluids is well known and conventional in the pump art as disclosed by Okuyama et al. (U.S. Patent 4,939,405) and would provide an art recognized alternative configuration for the pump.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO reference (WO 01/38614) as applied to claims 1-3, 8, 10-12, 14-16, 25-27 and 31 above, and further in view of Lundin et al. (U.S. Patent 6,077,462).

Lundin et al. (U.S. Patent 6,077,462) disclose micro-machining techniques include laser ablation (i.e., col. 3, lines 30-34).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus by forming the regulatory modules by laser ablation because WIPO reference (WO 01/38614) discloses that the regulatory modules can be formed by micro-machining techniques (p. 11; lines 29-34) and

because it is well known and conventional that micro-machining techniques include laser ablation as disclosed by Lundin et al. (U.S. Patent 6,077,462).

11. Claims 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO reference (WO 01/38614) as applied to claims 1-3, 8, 10-12, 14-16, 25-27 and 31 above, and further in view of [1] Rowland (U.S. Patent 4,457,686) or [2] Rowland (U.S. Patent 4,457,686) and Kajiwara et al. (U.S. Patent 5,766,540).

Rowland (U.S. Patent 4,457,686) discloses an extrusion apparatus 1 for extruding a material including passages 2 with a ridged section 7 with multiple ridges oriented along a long axis of the passages 2 for reducing the friction between the material and the passages 2, the ridges being coated with an antifriction material such as Teflon (i.e., col. 2, lines 24-33). Note that Teflon is a hydrophobic material.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the passages with a ridged section as disclosed by Rowland (U.S. Patent 4,457,686) because such a modification would reduce the friction between the extrusion material and the passages and because WIPO reference (WO 01/38614) discloses that reducing friction between the extrusion material and the passages is desired (i.e., p. 9, line 35, to p. 10, line 5). Instant claim 18 only further discloses dimensions, where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, <u>In Gardner v. TEC Systems, Inc.</u>, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S.

Application/Control Number: 10/535,093 Page 9

Art Unit: 1722

830, 225 USPQ 232 (1984). As to instant claim 19, the ridged section as disclosed by Rowland (U.S. Patent 4,457,686) has reduced friction and thus would have lower surface energy than the material. As to instant claim 23, note the ridged section of Rowland (U.S. Patent 4,457,686) is at the exit end of the passageway, and thus draw down would occur substantially adjacent thereto. Kajiwara et al. (U.S. Patent 5,766,540) discloses that tetrafluoroethylene (Teflon) is a hydrophobic material (col. 7, lines 15-18).

#### **Double Patenting**

12. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection based upon 35 U.S.C. 101.

- 13. Claim 11 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of copending Application No. 10/438,307. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.
- 14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated

by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 1-10, 14-23, 25 and 28-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14, 24, 25, 27-29, 32, 39-41, 44 and 45 of copending Application No. 10/438,307. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of copending Application No. 10/438,307 further recite that the passages are permeable. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to eliminate the permeable limitation because omission of an element and its function in a combination is an obvious expedient if the remaining elements perform the same functions as before, In re Karlson, 136 USPQ 184.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims 12, 26 and 27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14, 24, 25,

27-29, 32, 39-41, 44 and 45 of copending Application No. 10/438,307 in view of WIPO reference (WO 01/38614). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the apparatus of the claims of copending Application No. 10/438,307 with injection molding formation and with alkaline cleaning fluids because such modifications and benefits thereof are well known and conventional in the art as disclosed by WIPO reference (WO 01/38614), as mentioned above.

This is a provisional obviousness-type double patenting rejection.

17. Claim 13 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14, 24, 25, 27-29, 32, 39-41, 44 and 45 of copending Application No. 10/438,307 in view of WIPO reference (WO 01/38614) and Lundin et al. (U.S. Patent 6,077,462). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the apparatus of the claims of copending Application No. 10/438,307 with ablation forming because WIPO reference (WO 01/38614) discloses forming such apparatus with micromachining, as mentioned above, and because ablation is a well known and conventional micro-machining technique as disclosed by Lundin et al. (U.S. Patent 6,077,462), as mentioned above.

This is a <u>provisional</u> obviousness-type double patenting rejection.

18. Claims 1-10, 14-23, 25 and 28-31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-41 of copending Application No. 10/430,093 in view of WIPO reference (WO 01/38614). It would have been obvious to one of ordinary skill in the art, at the time the invention was

made, to modify the apparatus of the claims of copending Application No. 10/430,093 with the elements of the apparatus of WIPO reference (WO 01/38614) because such a modification would provide the benefits of such elements as disclosed by WIPO reference (WO 01/38614), as mentioned above.

This is a <u>provisional</u> obviousness-type double patenting rejection.

19. Claims 4-7 and 28-30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-41 of copending Application No. 10/430,093 in view of WIPO reference (WO 01/38614), as applied to claims 1-10, 14-23, 25 and 28-31 above, and further in view of Niemz et al. (U.S. Patent 6,902,690). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus with the control means of Niemz et al. (U.S. Patent 6,902,690), as mentioned above, because such a modification would provide feedback control of the parameters of the extrusion apparatus.

This is a provisional obviousness-type double patenting rejection.

20. Claim 9 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-41 of copending Application No. 10/430,093 in view of WIPO reference (WO 01/38614), as applied to claims 1-10, 14-23, 25 and 28-31 above, and further in view of Okuyama et al. (U.S. Patent 4,939,405). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the pump with a piezo-electric vibrator pump because such a piezo-electric vibrator pump for pumping fluids is well known and conventional in the

pump art as disclosed by Okuyama et al. (U.S. Patent 4,939,405), as mentioned above, and would provide an art recognized alternative configuration for the pump.

Page 13

This is a <u>provisional</u> obviousness-type double patenting rejection.

21. Claim 13 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-41 of copending Application No. 10/430,093 in view of WIPO reference (WO 01/38614), as applied to claims 1-10, 14-23, 25 and 28-31 above, and further in view of Lundin et al. (U.S. Patent 6,077,462). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus by forming the regulatory modules by laser ablation because WIPO reference (WO 01/38614) discloses that the regulatory modules can be formed by micro-machining techniques (p. 11; lines 29-34) and because it is well known and conventional that micro-machining techniques include laser ablation as disclosed by Lundin et al. (U.S. Patent 6,077,462), as mentioned above.

This is a <u>provisional</u> obviousness-type double patenting rejection.

22. Claims 17-23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-41 of copending Application No. 10/430,093 in view of WIPO reference (WO 01/38614), as applied to claims 1-10, 14-23, 25 and 28-31 above, and further in view of [1] Rowland (U.S. Patent 4,457,686) or [2] Rowland (U.S. Patent 4,457,686) and Kajiwara et al. (U.S. Patent 5,766,540). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the passages with a ridged section as disclosed by Rowland (U.S. Patent 4,457,686), as mentioned above, because such a

modification would reduce the friction between the extrusion material and the passages and because WIPO reference (WO 01/38614) discloses that reducing friction between the extrusion material and the passages is desired (i.e., p. 9, line 35, to p. 10, line 5). Instant claim 18 only further discloses dimensions, where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). As to instant claim 19, the ridged section as disclosed by Rowland (U.S. Patent 4,457,686) has reduced friction and thus would have lower surface energy than the material. As to instant claim 23, note the ridged section of Rowland (U.S. Patent 4,457,686) is at the exit end of the passageway, and thus draw down would occur substantially adjacent thereto. Kajiwara et al. (U.S. Patent 5,766,540) discloses that tetrafluoroethylene (Teflon) is a hydrophobic material (col. 7, lines 15-18).

This is a provisional obviousness-type double patenting rejection.

#### Conclusion

- 23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Vollrath et al. (U.S. Patent 6,858,168) is cited as of interest
- 24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (571) 272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

Application/Control Number: 10/535,093 Page 15

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

.11

ROBERT DAVIS
PRIMARY EXAMINER
GROUP 1300-/700